

CELLARCOOL

***ULTIMATE FM* SERIES**
OWNERS MANUAL

We manufacture, test and certify 100% of our wine cooling units in the USA. By sourcing the best components and closely controlling our manufacturing processes, we can assure the highest-quality, lowest defect manufacturing rates in the industry.

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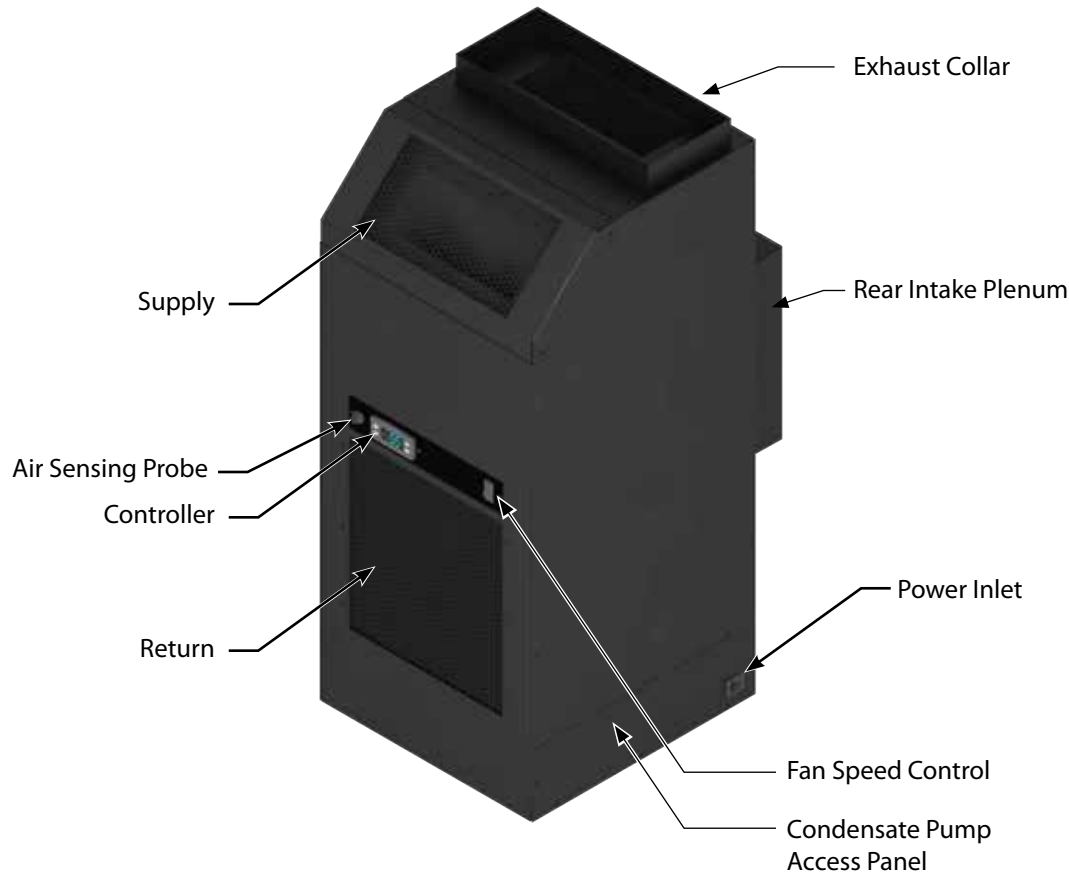
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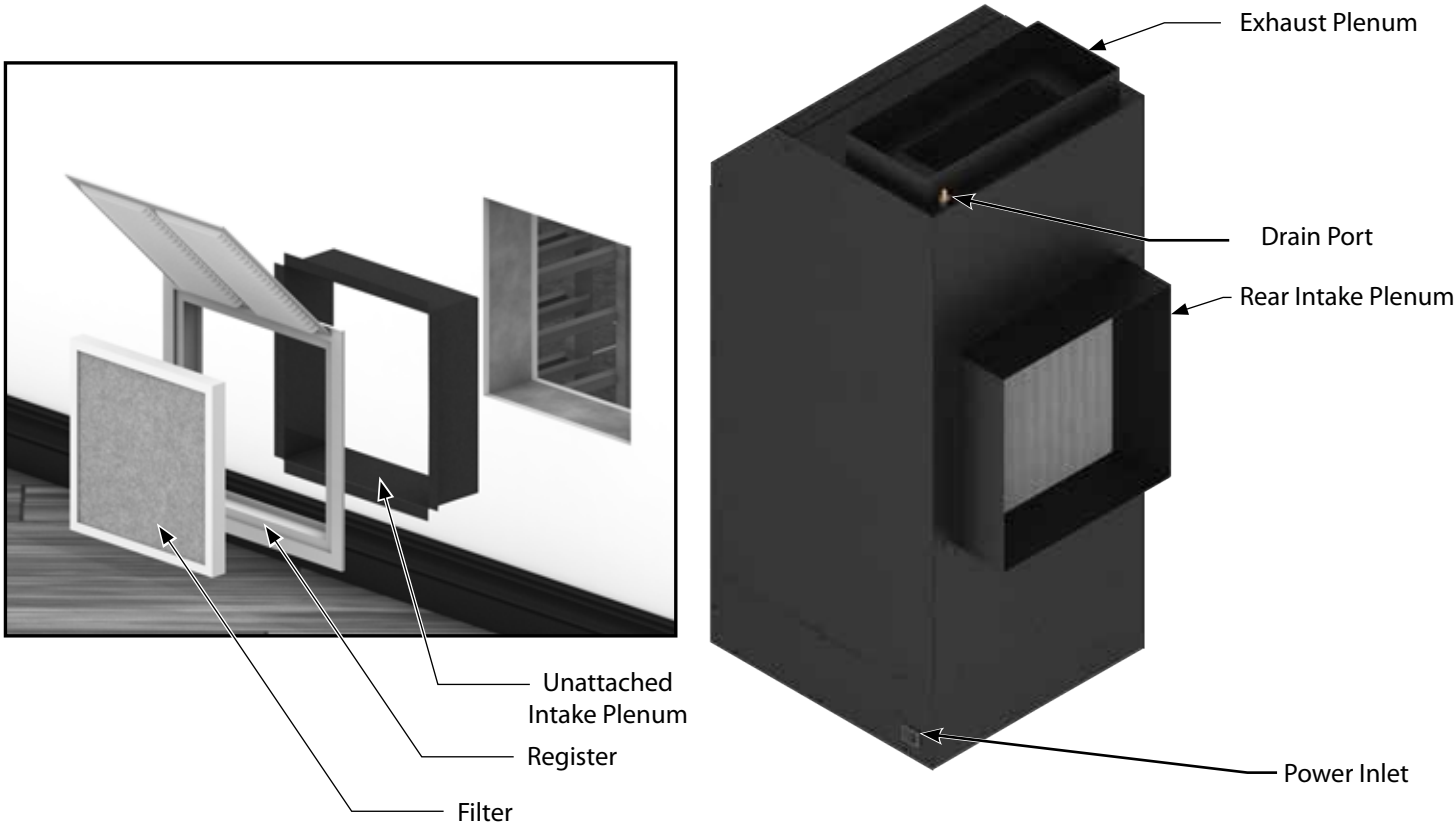
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QUICK REFERENCE GUIDE
Front / Side View



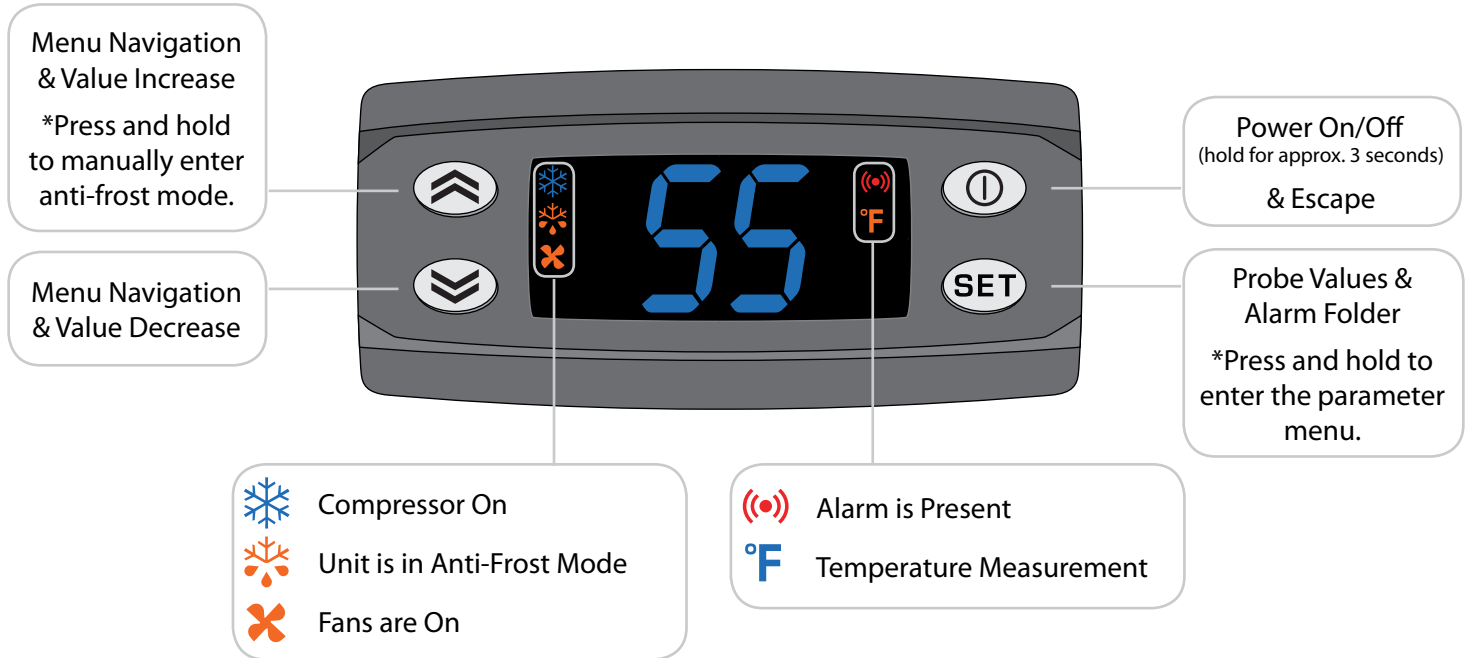
Rear / Side View



QUICK REFERENCE GUIDE

Controller Layout

Refer to page 24 for complete listing of buttons and symbols.



ULTIMATE FM UNIT SPECIFICATIONS

Model	Ultimate FM 8000 Low Speed		Ultimate FM 8000 High Speed	
Cellar Size (cu. ft.)	2000		2000	
Dimensions	15 1/4" w x 36.25" h x 16" d			
BTUh with 90° air entering the Condenser Coil	5610		6206	
CFM	275 Evaporator Side	257 Condenser Side	303 Evaporator Side	279 Condenser Side
Refrigerant	R-134a			
Compressor HP	1/2+		1/2+	
Voltage Rating (20 amp dedicated circuit required)	120V			
Weight (lbs)	131		131	
AMPS (Starting/Running)	38.6 Starting	9.2 Running	40 Starting	9.5 Running
dBA	65 Evaporator Side	54 Condenser Side	68 Evaporator Side	56 Condenser Side
Drainline	1/4" I.D			
Installation	Partially Ducted System. Maximum Ducted feet: 15'			
Thermostat	Digital Control Display			
Temp. Delta	55°F Temperature differential between the cellar temperature and condenser air intake temperature.			
Warranty	2 year parts and labor			

FAN SPEED REFERENCE

Your fan speed selection will depend on the amount of heat that needs to be removed from the cellar. Fan speed selection will depend on the cellar size, insulation factor, door seal and desired wine temperature. When initially installing the unit, set the fan speed to **High** setting for a quick chill down. Once the temperature of the cellar reaches the desired temperature, you may be able to select a lower fan speed to handle the normal load. In the event the temperature outside goes above 90 degrees, (when exhausting to the outside) you may need to select the higher fan speed.

Model	8000		8000	
Speed Selection	Low		High	
Air Flow (CFM)	275 Evaporator Side	257 Condenser Side	303 Evaporator Side	279 Condenser Side
Sound (dBA)	65 Evaporator Side	54 Condenser Side	68 Evaporator Side	56 Condenser Side
Cooling Capacity (BTU/h)	5610		6206	

* To get a feeling for decibels, a food blender at 3ft is 90 dBA, garbage disposal at 3ft is 85 dBA, vacuum cleaner at 10ft is 75 dBA, normal speech at 3ft is 79 dBA, dishwasher in the next room is 55dBA, Quiet night is 35dBA

INTRODUCTION

Customer Service

Thank you for purchasing a CellarCool Ultimate FM Series cooling unit. We strive to provide the highest quality products and the best possible customer service. If you have any questions about your CellarCool unit, please call us at 1(800) 343-9463 or visit cellarcool.com.

Using the Manual

This User's Manual is intended to assist in the proper installation and maintenance of the CellarCool cooling unit. In order to ensure the longevity of your cooling unit, the equipment should be installed properly and have a proper care and maintenance schedule. Please read and review this manual carefully and keep it for future reference.

What Is the CellarCool Cooling Unit?

The CellarCool unit is a specialized refrigeration unit designed for one purpose only: to maintain the optimal temperature and humidity levels conducive to the proper storage and aging of fine wines. It is a self-contained cooling unit designed to be used as a forced-air partially ducted system.

How Does the CellarCool Ultimate FM Series Work?

The CellarCool unit is especially designed for the use and application to maintain optimal conditions for wine storage and aging. The unit is fully self-contained and is designed to be installed completely inside the wine cellar. The unit draws air in from an adjacent room and exhausts heat via duct work to an acceptable area. This provides the ease of installation of a through the wall system, while keeping unwanted noise and heat to a minimum. All Ultimate FM units are temperature controlled via a Air Sensing probe and come standard with an advanced digital thermostat.

Temperature Setting

The CellarCool Ultimate FM unit can be set at any temperature within the acceptable wine-aging range of 50°F to 70°F. It is designed to cool up to 55°F cooler than the ambient temperature of the space to which it is exhausting.

RECEIVING & INSPECTING THE UNIT

Receiving and Inspecting the Unit

- Lift only at the designated hand hold locations on the shipping container or fully support the unit from underneath. A shipment may include one or more boxes containing accessories.
- Before opening the container, inspect the packaging for any obvious signs of damage or mishandling.
- Write any discrepancy or visual damage on the Bill of Lading before signing.
- Place the box containing the CellarCool unit on a tabletop to prepare it for testing prior to installing.
- Sit upright for 24 hours.

Note: CellarCool Ultimate FM units are manufactured in the USA and tested prior to shipment.

Review the Packing Slip to Verify Contents

- Check the model number to ensure it is correct.

If any items listed on the packing slip do not match your order information, contact CellarCool Customer Service immediately.

Check the Box for the following contents:

- Ultimate FM Cooling Unit
- Ultimate FM Register
- Ultimate FM Intake Plenum
- Filter

Accessory Kit One:

- CellarCool Ultimate FM Series Owner's Manual
- 8' Power Cord
- Air Sensing Temperature Probe (Standard Unit)
- 10' Drain Line
- Anti-Siphon device
- Tubing adapter

Please leave the CellarCool unit in its original box until you are ready for installation. This will allow you to move the product safely without damaging it. When you are ready to remove the product from the box, refer to the installation instructions.

TIP: Save your box and all packaging materials. They provide the only safe means of transporting/shipping the unit.

QUICK START GUIDE

This guide is meant to serve as a quick reference for installation of the CellarCool unit. The remainder of this Owner's Manual will provide more detailed information and instructions.

Upon receiving the CellarCool unit:

1. **Inspect the unit before installation.** If damage is found, please contact your distributor or CellarCool Customer Service at 1.800.343.9463 ext 799.
2. The unit should **remain in an upright position for 24 hours** prior to operation.
3. The CellarCool unit **requires a dedicated 115-volt 20-amp circuit.** Use a surge protector with the CellarCool unit. **Do not use a GFI** (Ground Fault Interrupter) line.
4. The unit is designed to gently cool down the temperature of the cellar over time by cycling cooler and cooler air throughout. **Test the unit prior to installation.** Operate unit for twenty minutes. While the unit is running and working properly, **the air discharged from the front should be 10 - 15°F cooler than the air** in the room. This means that in an environment where the air is 80°F, the unit will discharge air that is 65-70°F.
5. It is **REQUIRED** to **install a drain line** to remove condensation from the unit.
6. The CellarCool unit is intended **for use in properly designed and constructed wine cellars.** Hire a professional wine storage consultant with a valid contractor's license to build your wine cellar. Refer to the "How to Build a Wine Cellar" video available on the CellarCool website at www.cellarcool.com.
7. Install the Intake Plenum as shown on (page 13).
8. Install duct work as shown on (pages 17-19).
9. Install Drain Line as shown on (page 15).
10. Plug in the cooling unit.

Never try to open the CellarCool unit, repair it yourself, or use a service company without CellarCool's authorization. This will void your warranty.

If you encounter a problem with your CellarCool unit, please refer to the Troubleshooting Guide. If you have any further questions, concerns, or need assistance, please contact CellarCool Customer Service at 1.800.343.9463 ext. 799. Please be sure all testing has been completed prior to contacting Customer Service. Please have your results ready for your representative.

PREPARING THE WINE CELLAR

The performance and life of your CellarCool unit is contingent upon the steps you take in preparing the wine cellar.

Note: Improperly preparing your enclosure or incorrectly installing your CellarCool unit may cause unit failure, leaking of condensation, and other negative side effects.

IT IS HIGHLY RECOMMENDED THAT YOU OBTAIN THE ASSISTANCE OF A WINE STORAGE PROFESSIONAL.

Wine storage professionals work with licensed contractors, refrigeration technicians, and racking companies to build well-insulated, beautiful, and protective wine cellars. CellarCool has put together some useful tips to assist in the installation process. Our recommendations are meant to act as a guide in the process of building a proper enclosure. Your intended location may have specific needs that we do not address.

How to Build a Wine Cellar Instructional Video

CellarCool has a construction tutorial available on line at our website: www.cellarcool.com. This tutorial will walk you through the steps of constructing a properly built wine cellar and the installation of our CellarCool product line.

Wall & Ceiling Framing

Build wine cellar walls using standard 2x4 or 2x6 construction methods and ceiling joists following the guidelines of local and state codes in your area. As a general rule, the thicker the walls and the higher the insulation value in your cellar, the better it will be at maintaining a consistent temperature.

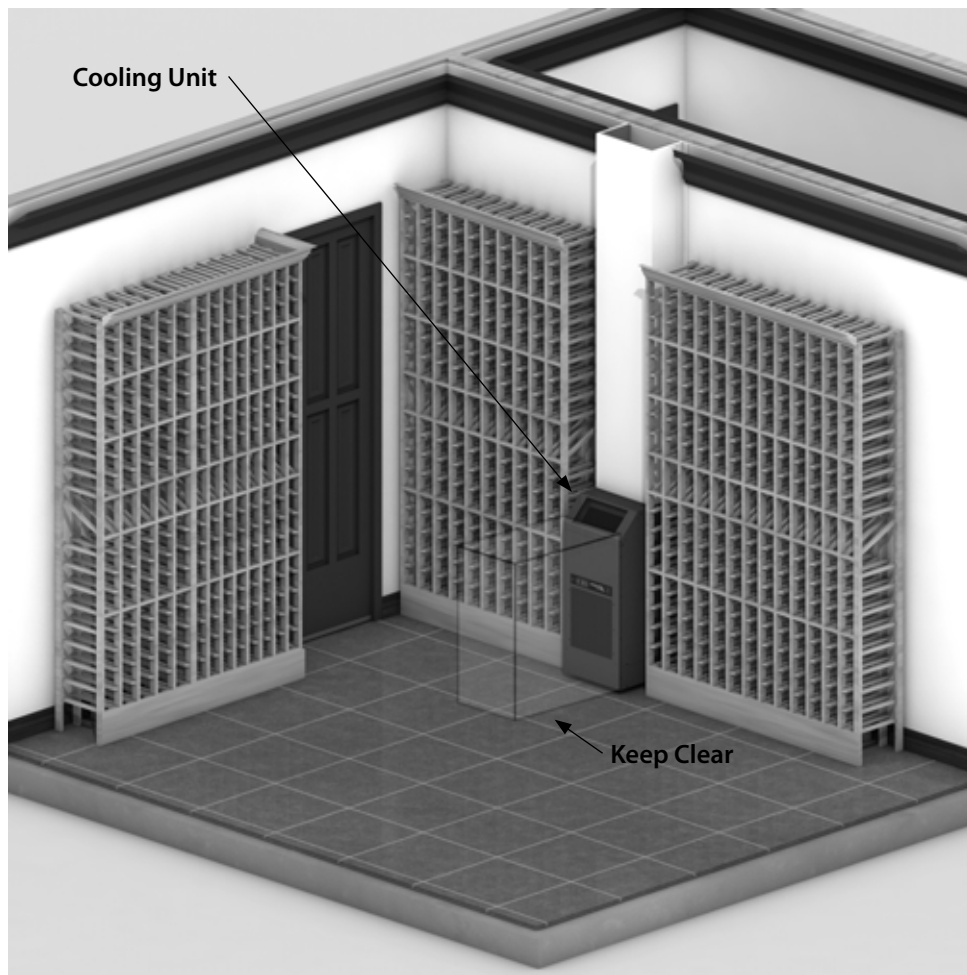
Insulation

Insulation is **REQUIRED** with the use of the CellarCool product. Standard fiberglass or rigid foam insulation is normally used in cellar construction or, in some cases, "blown-in" insulation is used. It is very important that all walls and ceilings are insulated to keep the cellar temperature as consistent as possible during the summer and winter months. The R-value, or quality of insulation, is determined by the rate at which heat passes through the insulation. The higher the R-value, the more resistant the insulation is to conducting heat. Using higher R-values in insulation will lower your operating costs and unit run time. (R-13 minimum, R-19 recommended, R-30 for ceiling and exterior walls.)

Vapor Barrier

A vapor barrier is **REQUIRED** to prevent the intrusion of water vapor so that the cellar can be kept at the correct temperature and humidity. 6 mm plastic sheeting (recommended) should be applied to the warm side of the cellar walls. The vapor barrier must also be applied to the outside walls and ceiling. If it is impossible to reach the outside, then the plastic must be applied from within the cellar. The most common method is to wrap the entire interior, leaving the plastic loose in the stud cavity so the insulation can be placed between each stud. All of the walls and ceiling must be wrapped in plastic for a complete vapor barrier.

In areas of high humidity, such as Southern and Gulf States, the vapor barrier will prevent infiltration of warm moist air. The moist air can cause mold to form, and standing water in drain pans promote microbial and fungal growth that cause unpleasant odors and indoor air quality problems. If mold is found, remove it immediately and sanitize that portion of the unit.



Unobstructed Airflow

Unobstructed airflow to and from the unit is critical for the unit's overall performance and life-span. A minimum three-foot clearance (five foot is ideal) area is crucial. The air the fans blow needs to circulate and either dissipate or absorb heat from the space, the more air to exchange the more efficient the unit will operate.

Note: Avoid attempting to camouflage the unit. This will restrict airflow and thus the unit's ability to work efficiently.

Door and Door Seal

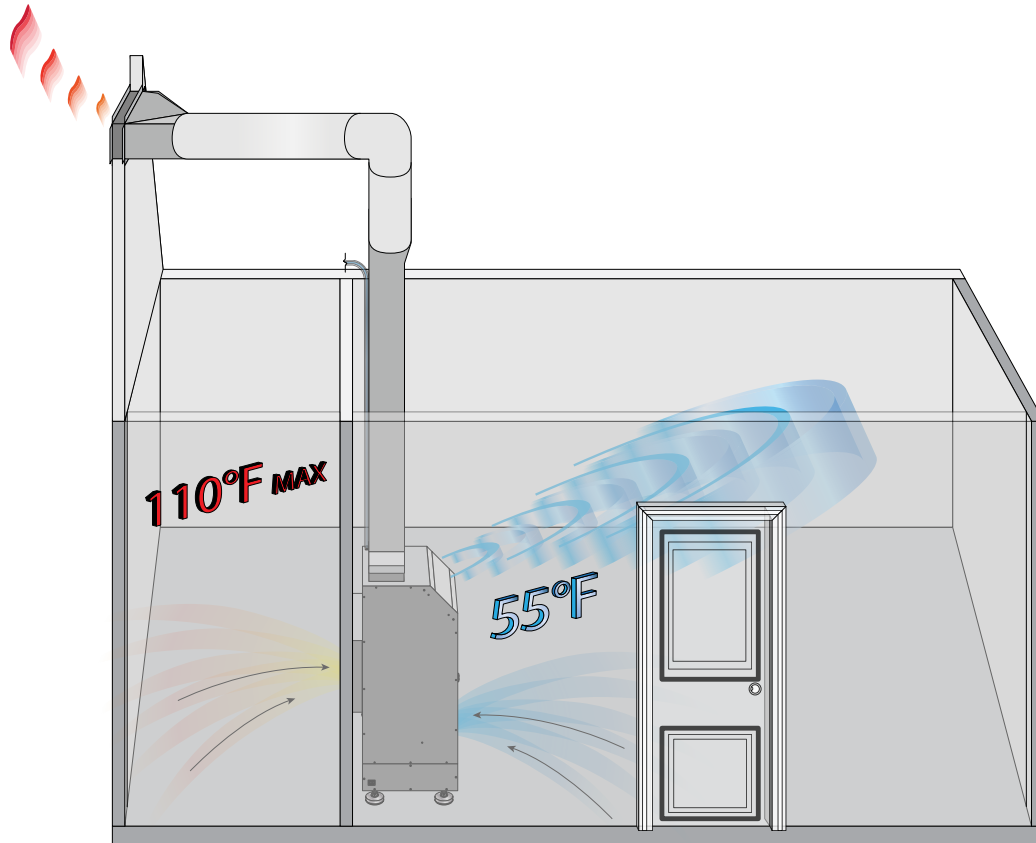
An exterior grade (1 3/4") door must be installed as a cellar door. It is very important that weather stripping is attached to all 4 sides of the doorjamb. A bottom "sweep" or threshold is also required. The door must have a very good seal to keep the cool cellar air from escaping out of the cellar. One of the most common problems with cooling units running continually is due to the door not sealing properly. **In cases where glass doors are used and the room size is close to the recommended unit size, the next larger size CellarCool should be used.** This will compensate for the insulation loss due to the lower insulating rating of glass.



Ventilation

The necessity of dissipating heat away from the unit is critical to the unit's performance and cannot be overstated. As the unit operates and cools, a greater amount of heat is generated on the exhaust side of the unit. Adequate ventilation is required in order to dissipate heat away from the unit. If ventilation is inadequate, the exhaust will heat up the area or room and adversely affect the unit's ability to cool. In some cases, it may be advisable to install a vent fan to dissipate heat within the exhaust area on the backside of the unit. However, you must have a fresh air inlet as well.

Note: If you are unsure about having adequate ventilation in your install location, please contact us to assess your specific installation at support@cellarcool.com or 1.800.343.9463.



Ambient Temperature Factor

The cooling unit has the ability to cool a wine cellar efficiently to 55°F as long as the ambient temperature of the area that it is exhausting to does not exceed 110°F. Therefore, you want to exhaust the unit in a room which will not exceed 110°F. Otherwise the unit will not have the capacity to keep the wine at a desirable 55°F.



Warning, allowing your unit to operate in high ambient temperatures for extended periods of time will greatly decrease the life of your unit and void your warranty.



PRE-INSTALLATION

TEST THE UNIT PRIOR TO INSTALLATION

To prepare it for testing before installation in wall:

- Unit needs to be in the upright position for 24 hours before starting.
- Remove unit from box
- Plug in unit to electrical outlet
- Turn on to test (see #4 on the Quick Start Guide for details).
- Turn off after test

Electrical Needs

The CellarCool Ultimate FM Unit requires a dedicated 115-volt 20-amp circuit. The unit draws a large amount of amps at initial start up. By designating a dedicated circuit breaker, you will guarantee the unit has enough power to run effectively. Contact an electrician for assistance with the installation of this dedicated electrical circuit:

- Match the electrical outlet to the plug provided on the CellarCool unit.
- Provide a dedicated circuit and wiring for the unit.

Plug your CellarCool unit into a surge protector or power conditioner. As with any sensitive electrical equipment, the CellarCool electrical equipment may be damaged by power surges and spikes. Power surges and spikes are not covered under warranty.

WE RECOMMEND THAT YOU DO NOT USE A GROUND FAULT INTERRUPTER (GFI) WITH THIS PRODUCT.

Electrical Inlet

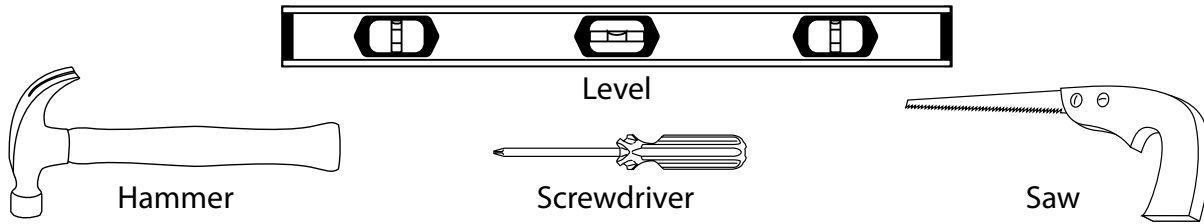
The unit is equipped with a power inlet which is located on the right side of the cooling unit and is labeled in the Quick Reference Guide on page 2. The power inlet is to be connected inside of the cellar.

In case the unit should lose power, check the home/main circuit breaker. If the unit does not respond properly, refer to the Troubleshooting section.

PREPARING THE INSTALLATION LOCATION

Through-the-Wall

Minimum Tools Needed



Locate the desired installation location. Using a stud finder, locate the studs on either side.

Place the unit against the wall to determine the height of the Intake Plenum on the rear of the Cooling Unit.

Using a level and a pencil, make an outline of a 12 1/4" square in between the two studs to provide an entry for the two Intake Plenums pieces.

Using a saw, cut out the outlined square. Be careful not to cut into any studs, electrical, or plumbing.

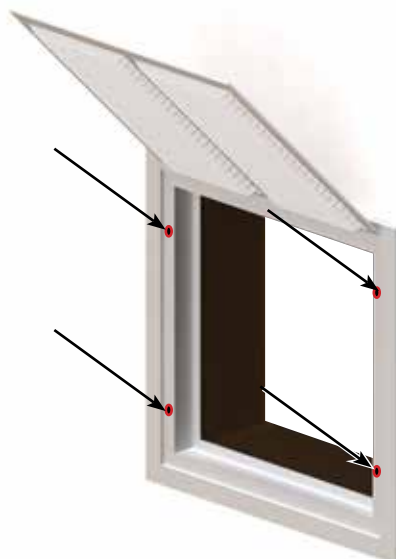
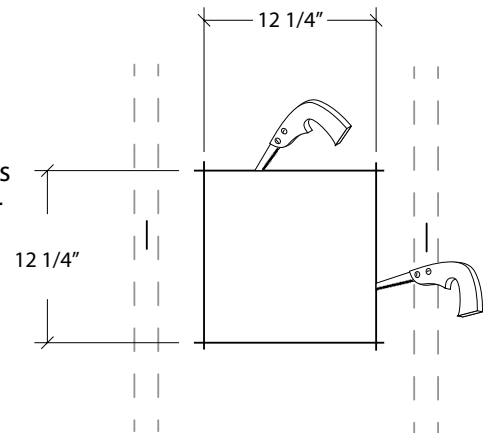
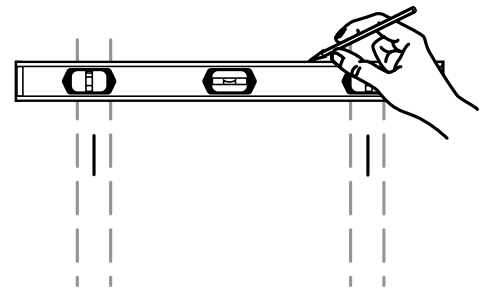
If present, only remove the insulation covering the area of the cut-out.

Now you have to make the same hole on the other side of the wall. Since you already have one hole, this is an easy process. Using a nail, mark all four corners of the first hole by making nail holes through the sheetrock. Then on the other side of the wall, connect the holes with a pencil mark and cut.

Though there are still steps prior to the installation of the unattached Intake Plenum, check to see that the Plenum fits snugly through the cut-out area.

Place the Register on the unattached Intake Plenum. Mark the holes that will be drilled.

Pre-Drill the holes on the unattached intake Plenum.



INSTALLING THE UNIT

From outside the cellar:

1. Apply air-tight sealant or caulking on the area of the unattached Intake Plenum that will contact the wall (as shown in Figure 1). Make sure to seal all cracks and gaps. This will prevent heat transfer between the cellar and the adjacent area.
2. Slide in and secure the unattached Intake Plenum to the wall from outside of the cellar using sheetrock anchors or wood screws when going into a stud.



FIGURE 1

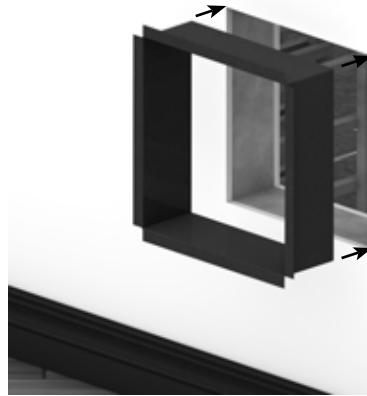


FIGURE 2

From inside the cellar:

3. Position the Rear Intake Plenum through the cellar wall. This will provide the intake on the condenser side of the unit with fresh air.
- It is not required to place the cooling unit directly against the cellar wall, however, having the unit as close to the wall as possible is recommended.

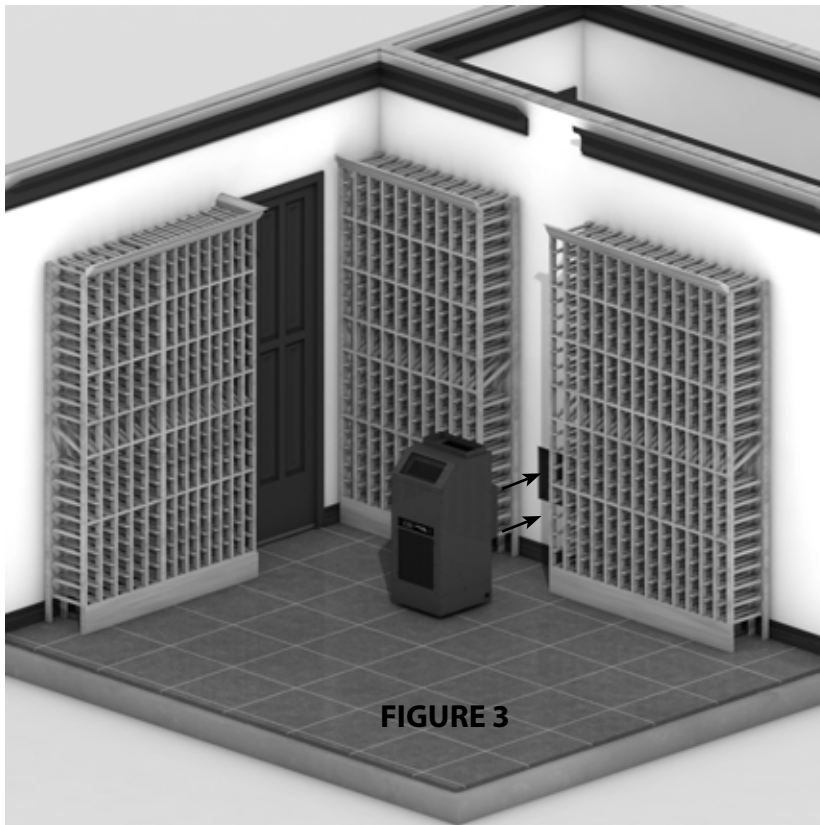


FIGURE 3

INSTALLING THE UNIT

From outside the cellar:

Make sure to remove all insulation or debris left inside either Plenum prior to sliding the cooling unit against the cellar wall and connecting the Intake Plenum and the rear unattached Intake Plenum.

4. From outside the cellar seal all cracks and gaps where the two Intake Plenums meet on the inside of the unattached Intake Plenum with an air-tight sealant or caulking to prevent heat transfer between the cellar and the adjacent area (as shown in Figure 4).
5. Attach the Register to the unattached Intake Plenum.
6. Insert the Filter into the Register.
7. Plug in the Cooling Unit when finished ducting the exhaust on the condenser side of the unit.

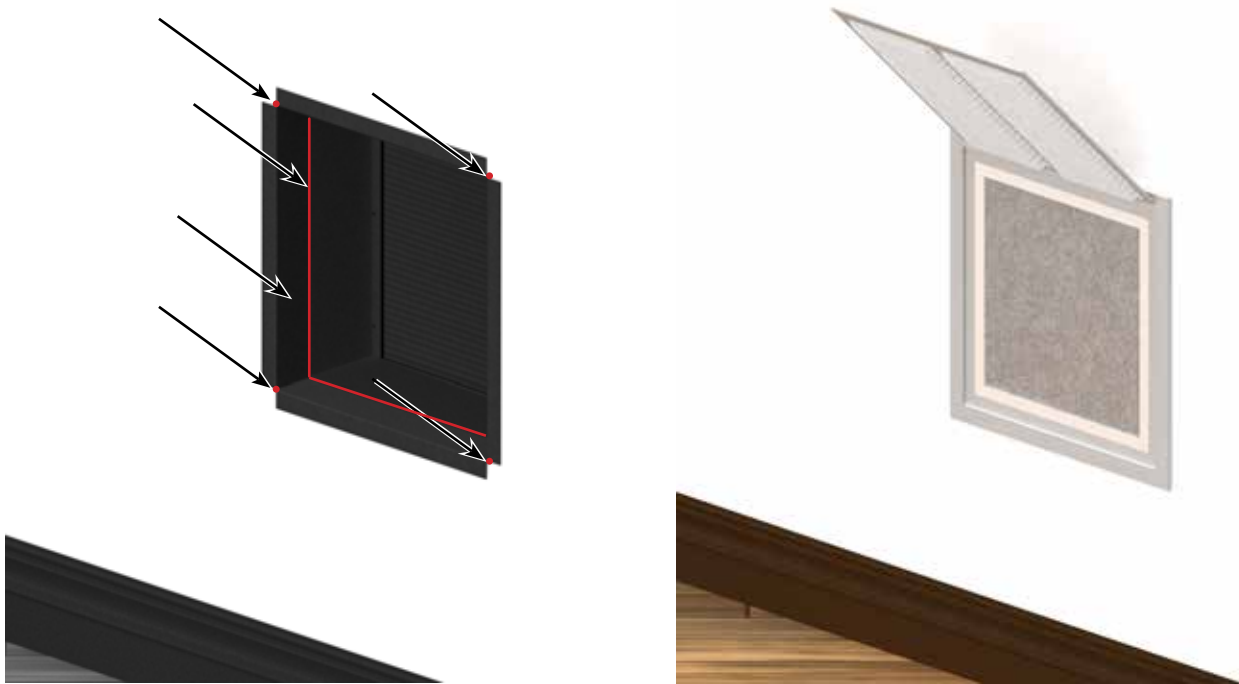


FIGURE 4

Note: If you use decorative moulding, it should be attached to the walls and never to the cooling unit itself. The moulding itself should be removable incase the unit needs servicing.

DRAIN LINE

Condensation Drain Line Tube

The condensation drain line tube is used to remove excess condensation from the unit to a proper discharge location. It is important that the drain line tube is properly connected and used to prevent leakage and other problems associated with excess condensation.

Failure to use the condensation drain line tube will void the warranty on the unit.

Drain Line

During operation, the cooling unit will strip excess condensate from the air in order to maintain the proper level of humidity within the cellar. Thus the drain line will prevent overflow and leaking by allowing for discharge of the additional condensate.

Connect the Drain Line Tube to the Drain Port on the Top of the Cooling Unit. Routing the Drain Line to the attic and then to a dispense area is recommended. The Ultimate FM Cooling Unit will Pump the excess condensate through the Drain Line Tube.

Do not rout the drain line more than 30 vertical ft.

If the outlet of the drain line is below the base of the unit, install the anti-siphon device as shown in (Figure 5).

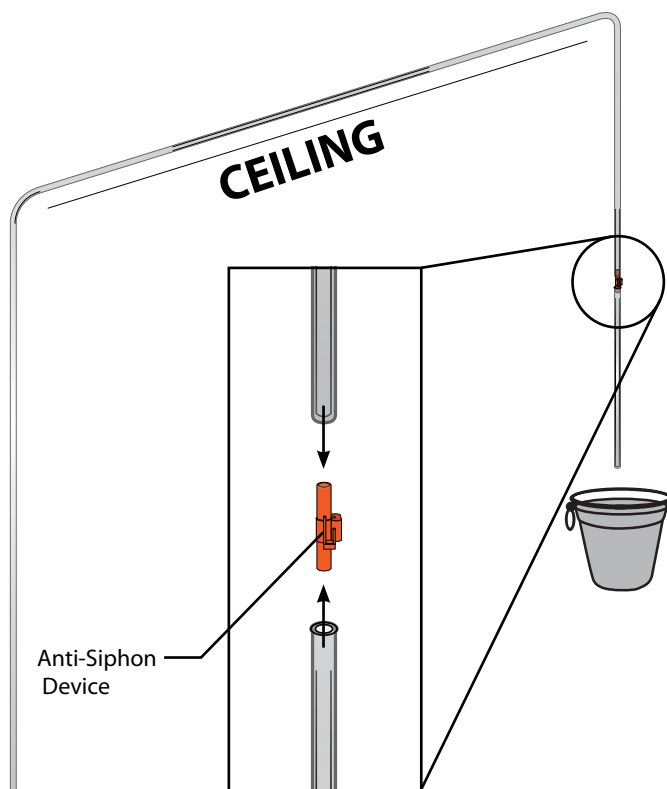


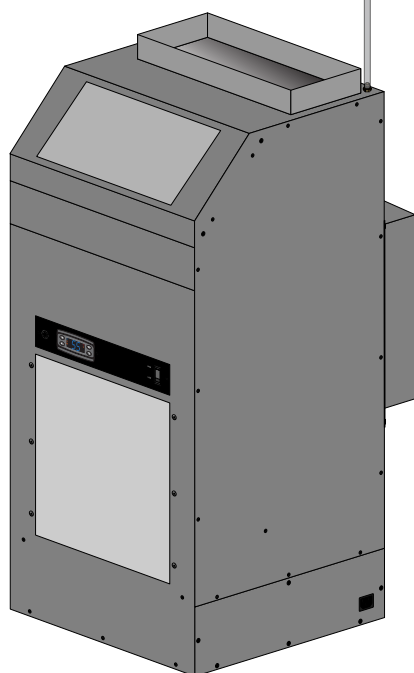
FIGURE 5

Failure to install the drain line voids the warranty.

To prevent mold from growing, allow the drain line to hang above the water line.



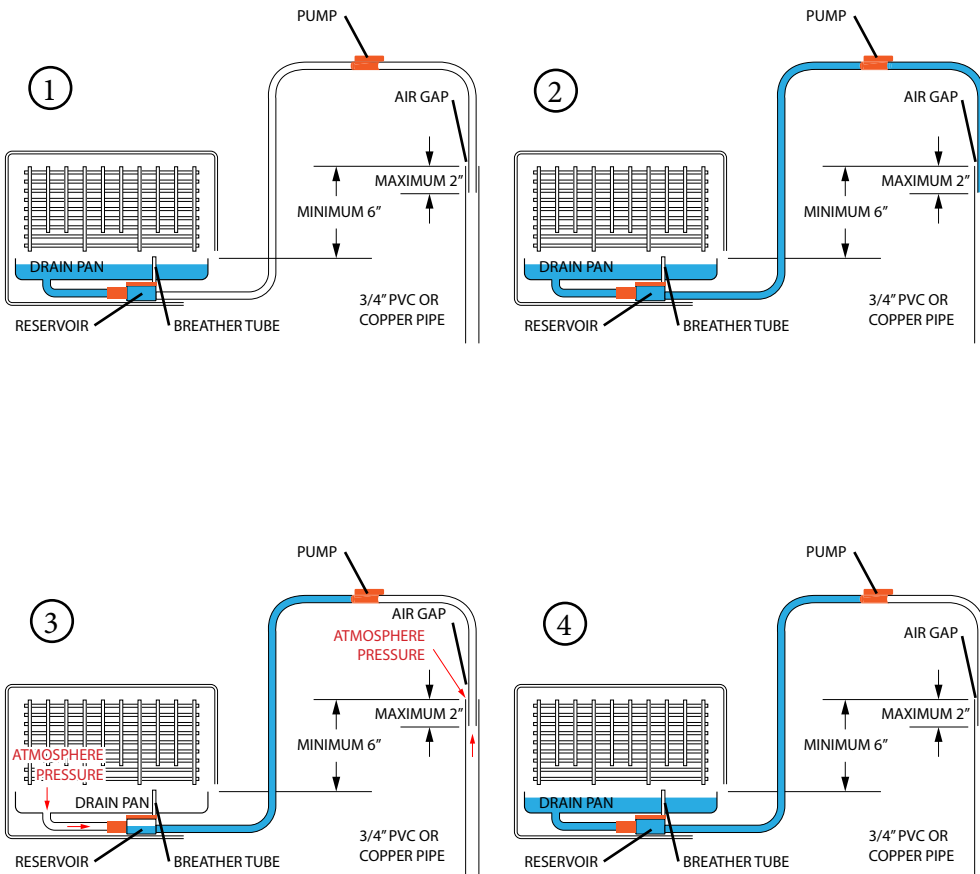
WRONG: Drain line is under water.



DRAIN LINE PUMP SYSTEM

CORRECT: Typical sequence of operation for correct Discharge Hose installation with Anti-Siphon Device

1. Drain pan fills with water which flows into reservoir. Intake hose between reservoir and pump is empty (filled with air).
2. Raising water lifts float, activating pump, which self primes by drawing water up from reservoir. During this period the pump is operating hot and dry and will click loudly. Once the air in the intake hose has been purged, water entering the pump cools and lubricates it so that the clicking noise becomes a low hum. Water flows through the pump and out of the discharge hose.
3. Water level in the reservoir has now receded enough to lower the float which deactivates the pump, however, since an Anti-Siphon Device is included in the discharge hose, atmospheric pressure is equalized at both ends of the hose system so the siphoning effect cannot occur and **THE INTAKE HOSE REMAINS FILLED WITH WATER.**
4. The drain pan again fills up with water which flows into the reservoir and activates the pump. **THE INTAKE HOSE IS ALREADY FILLED WITH WATER** so no air is sucked in, and the pump is immediately cooled and lubricated. **NO CLICKING NOISE IS HEARD.**



THE PUMP IS NOW OPERATING ENTIRELY WITHIN NORMAL PARAMETERS AND IS IN NO DANGER OF OVERHEATING OR FAILING.

NOTE: THIS APPLIES ONLY TO INSTALLATIONS WHERE THE POINT AT WHICH THE CONDENSATE WATER EMERGES FROM THE DRAIN HOSE OR PIPE IS BELOW THE DRAIN PAN IN THE EVAPORATOR.

IF THE END OF THE PUMP
DISCHARGE HOSE OR PIPE IS ABOVE
THE LEVEL OF THE DRAIN TRAY IN
THE EVAPORATOR NO SIPHONING
CAN OCCUR AND AN ANTI-SIPHON
DEVICE IS NOT REQUIRED.

DRAIN LINE PUMP SYSTEM

INCORRECT: Failure to follow correct Discharge Hose installation will damage pump.

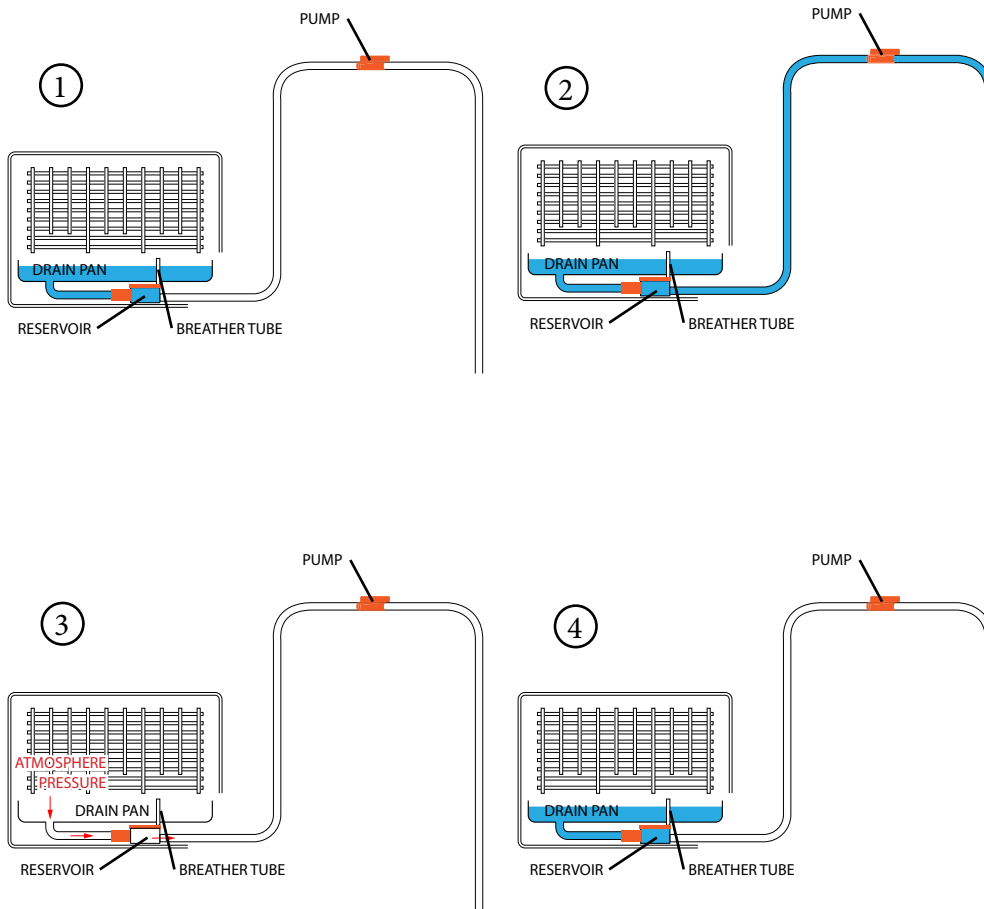
1. Drain pan fills with water which flows into reservoir. Intake hose between reservoir and pump is empty (filled with air).
2. Raising water lifts float, activating pump, which self primes by drawing water up from reservoir. During this period the pump is operating hot and dry and will click loudly. Once the air in the intake hose has been purged, water entering the pump cools and lubricates it so that the clicking noise becomes a low hum. Water flows through the pump and out of the discharge hose.
3. Water level in the reservoir has now receded enough to lower the float, deactivating the pump. However, the weight of the water in the discharge hose plus atmospheric pressure at the drain pan outlet forces the water remaining in the intake hose to continue flowing out through the pump until the reservoir, intake hose, pump and discharge hose are completely empty, at which point the siphoning stops.
4. As the evaporator produces more condensate, the drain pan again fills up with water which flows into the reservoir. Since the intake hose is filled with air again, the cycle repeats itself.

RESULT: EVERY TIME THE PUMP RUNS HOT AND DRY, IT SUSTAINS A SMALL AMOUNT OF DAMAGE WHICH CAUSES PREMATURE WEAR.

THE NEXT TIME THE PUMP STARTS UP DRY, IT MAY RUN FOR 11 SECONDS BEFORE IT COOLS DOWN THE NEXT TIME 12 SECONDS AND SO ON. ALSO WHILE THIS IS OCCURRING, THE PUMP IS CLICKING LOUDLY. THIS IS ACCEPTABLE DURING THE INITIAL START UP PHASE, BUT NOT ACCEPTABLE DURING SUBSEQUENT OPERATIONS OF THE PUMP.

WHEN YOU CONSIDER THAT THIS WILL OCCUR A NUMBER OF TIMES EVERY DAY OF THE COOLING SEASON IT IS EASY TO SEE THAT THE DAMAGE WILL RAPIDLY ACCUMULATE. IF THE PUMP IS ALLOWED OPERATE IN THIS CONDITION REPEATEDLY, THE NOISY PERIOD WILL GET LONGER AND LONGER OVER THE COOLING SEASON UNTIL THE CUSTOMER COMPLAINS OR THE PUMP EVENTUALLY FAILS.

THIS CAN EASILY BE AVOIDED BY INSTALLING THE DISCHARGE HOSE CORRECTLY WITH AN ANTI-SIPHON DEVICE WHICH WILL EQUALIZE THE ATMOSPHERIC PRESSURE AND ELIMINATE THE SIPHONING.

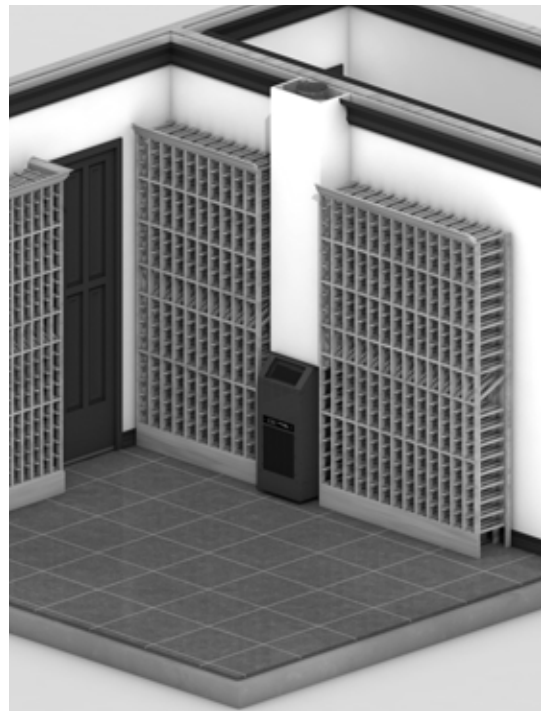
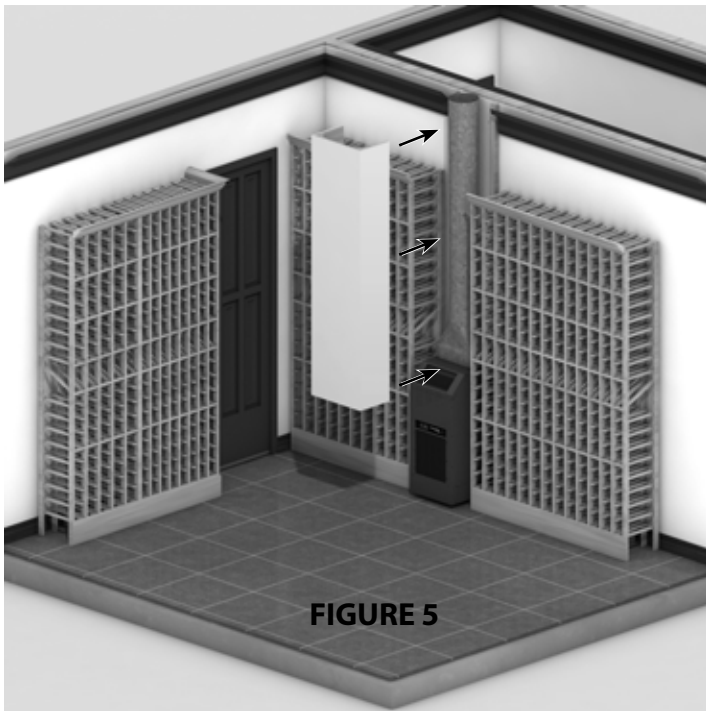
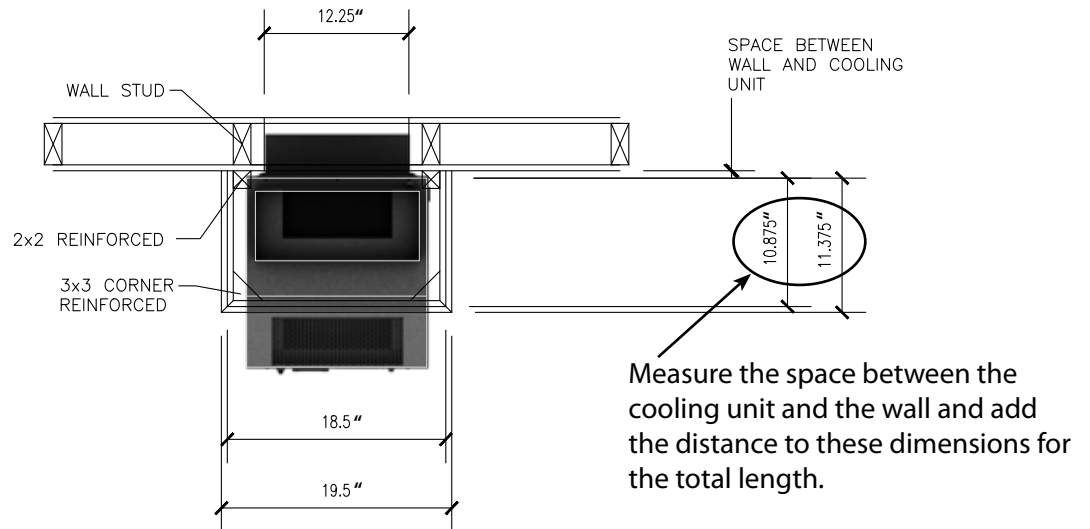


INSTALLING THE DUCT WORK

Building a Facade

The Ultimate FM Cooling Unit is set up to have a variety of Ducting Installation Options. The exhaust may be ducted into the attic or out to the exterior of the house through the attic. The first option to consider is using a standard 6"x14" Duct Boot and 8" diameter duct work for the exhaust followed by building a facade around the duct work.

Figure 5 below is an example that may be followed to create a facade to extend to the Ceiling using: 1/2" Plywood, 1/2" Drywall (2) 2x2, (2) 3x3.



INSTALLING THE DUCT WORK

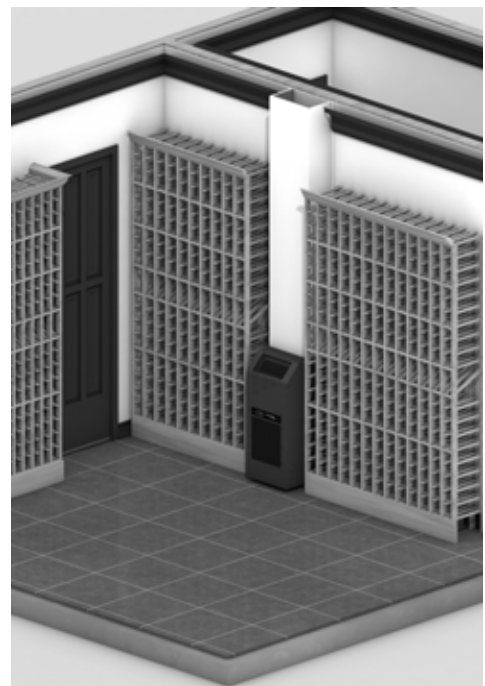
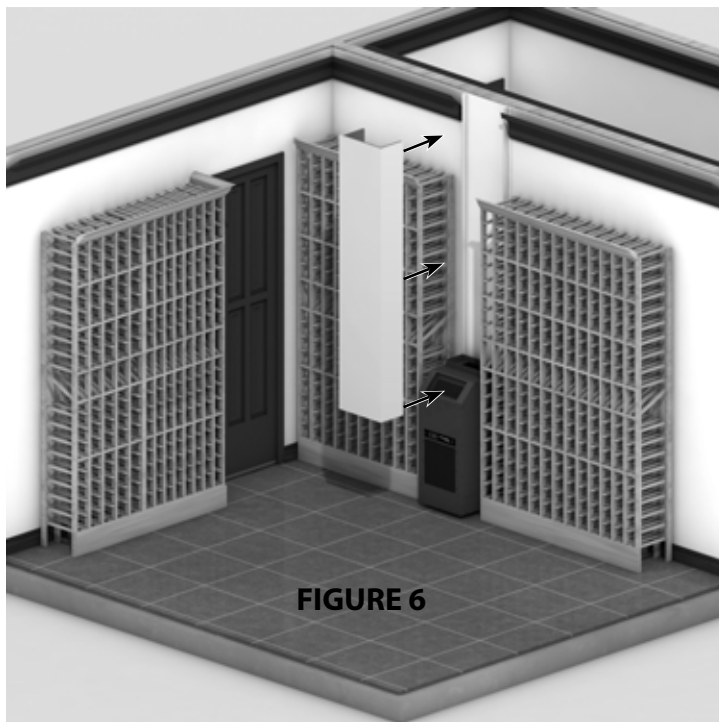
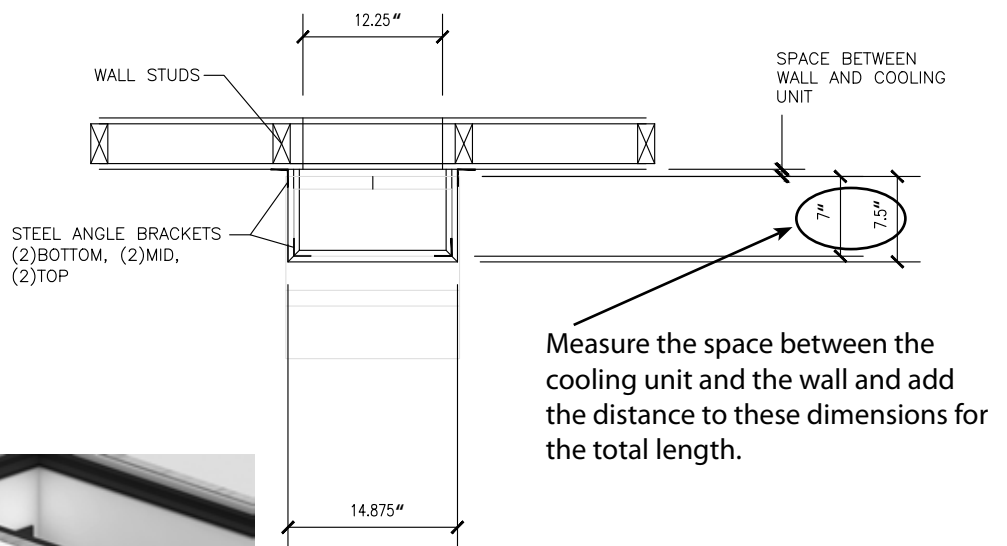
Custom Duct Work

Another Option that might be considered is building Insulated Custom Duct Work. Figure 6 below is an example that may be followed to create Insulated Custom Duct Work to extend to the attic using 1/2" Plywood, 1/2" Insulation Board and (24) Angle Brackets.

Ducting Information

When Ducting the Exhaust away from the Cooling Unit, custom Ducting will be sufficient if it follows these recommendations:

- Custom Ducting is insulated so that the warm exhaust air in the duct does not affect the air in the Cellar.
- The surface area of inside the duct is greater than or equal to 51 sq. in.
- The Duct Work follows the General Duct Recommendations on page 21.



NOTES

DUCTING OVERVIEW

Use of Ductwork

Use ductwork to connect the Exhaust Collar on the top of the cooling unit to the desired exhaust area. Use only insulated ductwork to minimize cooling losses and reduce noise.

Note: Do not exceed a total of 15' for the length of ductwork.

Avoid crimping the flexible ducts. This chokes down the inside area and reduces the airflow causing the unit to operate improperly. Be sure all duct work is insulated.



DO NOT ALLOW FLEXIBLE DUCTING TO GET SQUEEZED OR ALLOW THE INSIDE DIAMETER TO DECREASE DUE TO VERY SHARP TURNS.



General Duct Recommendations

- Use a 6"x14" duct boot to connect to the Exhaust Collar (when using standard duct work).
- Provide support for the flexible duct to prevent sags and bends.
- Ultimate FM 8000 Duct Size: 8" dia.
- Stretch out the duct to make a smoother interior which reduces air resistance.
- Maximum duct length is 15'.
- For 90° bends, use a 90° adjustable elbow.
- No more than two 90° bends. Sweep 90° bends are recommended rather than sharp 90° bends.
- Generously apply duct sealant to all metal seams to fill in gaps that can leak air. Allow sealant to dry until firm to the touch before applying fiberglass insulation.
- Do not squeeze or reduce the inside diameter of the ducts as this will reduce airflow.
- Use short and straight ductwork where possible.
- Check that all fan blades move freely.
- Keep air paths free of loose foreign objects and debris.

Do not: Locate the Exhaust where it will be blocked for any reason.

MULTI SPEED FAN CONTROL

Designed for wine cellars up to 2000 cubic feet, the Ultimate FM 8000 features multi-speed fans with a “high” setting for maximum performance in high-temperature (+110°F) environments and a “low” setting for super-quiet operation.

Fan Speed Selector Switch (Low/High): The cooling unit fans may operate on two speed settings: Low and High. For optimum sound and energy efficiency, select the lowest fan speed that will maintain the desired cellar temperature. If the relative humidity is low, a higher fan speed will cause less moisture to be removed during cooling. High speed is recommended for initial cellar cool down.

Your fan speed selection will depend on the amount of heat that needs to be removed from the cellar and the application of the unit. Fan speed selection will depend on the cellar size, insulation factor, door seal and desired wine temperature. When initially installing the unit, set the fan speed to the **Highest** setting for a quick chill down. Once the temperature of the cellar reaches the desired temperature, you may be able to select the lower fan speed to handle the normal load. In the event the temperature of the intake air on the condenser side goes above 90 degrees, you may need to select the higher fan speed.

Model	8000		8000	
Speed Selection	Low		High	
Air Flow (CFM)	275 Evaporator Side	257 Condenser Side	303 Evaporator Side	279 Condenser Side
Sound (dBA In Cellar / Out of Cellar)	65 Evaporator Side	54 Condenser Side	68 Evaporator Side	56 Condenser Side
Cooling Capacity (BTU/h)	5610		6206	

UNIT OPERATION

Initial Start-Up:

When power is applied to the unit, the control will briefly display all symbols, and the Compressor symbol will be displayed (if unit is calling for cooling). There may be a brief delay prior to the evaporator and condenser fans turning on.

Set Point:

The set point is set from the factory (Cellarcool) at 55°. It can be adjusted by the customer between 50° and 70° in one degree increments.

Cooling Operation:

Cooling is activated once the Air Sensing probe senses a temperature that is 1° greater than the set point. The controller then energizes the compressor relay which activates the compressor. The evaporator and condenser fans operate with the compressor. The unit provides cooling until the Air Sensing probe senses the set point. At this point the compressor relay is de-energized which stops the compressor. The evaporator and condenser fans will continue to run for 1 minute to re-evaporate any moisture from the evaporator coil and reduce the head pressure.

Humidity Features:

The FDC parameter can be increased to allow the evaporator and condenser fans to run for a longer period of time after the compressor turns off, allowing more moisture to be re-evaporated into the cellar.

Defrost/Anti-frost:

When the evaporator probe senses a temperature of 26 degrees for 5 minutes, the unit will go into Anti-frost mode. This will shut down the compressor and allow the evaporator and condenser fans to run to evaporate any frost accumulation on the coil. The compressor will remain off until the evaporator coil reaches 40°, or for a maximum of 10 minutes. The unit will then return to normal operation.

If the evaporator is not above 26 degrees after the anti-frost sequence has ended, the red error light will display in the upper right corner. Alarm "Ad3" will be recorded in the alarm folder, meaning that the anti-frost sequence ended based on time. The unit will run for 5 minutes and then enter another Anti-Frost cycle. This sequence will continue until the evaporator temperature increases above 26°.

"Def" will be displayed during anti-frost. If the anti-frost sequence is less than 5 minutes, the control will not allow the compressor to start until 5 minutes has elapsed. This is to prevent short cycling of the compressor.

Holding down the up button for approximately five seconds manually starts the Anti-frost sequence, but only if the evaporator is below 40 degrees (defrost end temperature). If the evaporator is above 40 degrees, the display will blink three times and continue normal operation.

Display:

The Air Sensing probe temperature is displayed by default. "Def" is displayed during anti-frost. The Air Sensing probe and evaporator probe temperatures can be accessed by pushing the set button and scrolling through PB1 (Air Sensing probe) and PB2 (evaporator probe).

Safety Features:

Once the compressor relay is de-energized the controller must wait 5 minutes before re-energizing the relay. This prevents the compressor from repeatedly turning off and on. If the unit is calling for cooling during this time, the compressor symbol will blink indicating that cooling is needed but the control is waiting for the anti-short cycle delay.

In the event of a faulty Air Sensing probe, the compressor will cycle off for 10 minutes and on for 40 minutes. E1 will be displayed on the screen.

Alarms:

If the Air Sensing temperature reaches 4 degrees above the set point, a red light will blink in the upper right corner of the display. The set button can then be pressed to reach the alarm menu. The menu will display "AH1" indicating a high Air Sensing temperature. The same thing will happen if the Air Sensing temperature reaches 4 degrees below the set point, except the alarm will read "AL1". These alarms will not display for the first 10 hours after the unit is turned on to allow the cellar to reach temperature. They will also wait one hour after an anti-frost cycle before displaying.









In the event of a faulty evaporator probe E2 will flash on the screen intermittently. The red alarm light will be displayed in the upper right corner. The unit will go through one anti-frost sequence every 24 hours.

Press the set button and enter the Al folder to view any current alarms that are not flashing on the display.

In the event of a high water alarm the compressor will turn off, the alarm will sound and "Opd" will be displayed in the alarm folder. The unit will continue normal operation once the pump has removed enough water to clear the high water alarm.

CONTROLLER FUNCTIONS



Button/Symbol	Normal Functions						
ON/OFF 	<ul style="list-style-type: none"> Press and hold the on/off button for approximately 3 seconds to turn the unit on or off. <i>Note: This does not disconnect power from the unit. In order for the power to be shut off from the unit, the power cord must be unplugged from the wall receptacle.</i> This button also serves as an escape button. 						
Up and Down  	<ul style="list-style-type: none"> Use these buttons to scroll up or down a menu. Press and hold the up button for approximately five seconds to manually start the Anti-frost sequence. The Anti-frost sequence will begin, but only if the evaporator is below 40 degrees. If the evaporator is above 40 degrees, the display will blink three times, signalling that an Anti-frost cycle is not needed, and the unit will continue normal operation. 						
SET 	<ul style="list-style-type: none"> Press the set button once to view the set point, temperature of the evaporator and actual Air Sensing temperature as well as any alarms. Once the set button is pressed "SET" will be displayed. Press the up or down arrows to scroll through Pb1, Pb2. <table border="1" data-bbox="576 1060 1250 1207"> <thead> <tr> <th>SEt</th><th>Set Point</th></tr> </thead> <tbody> <tr> <td>Pb1</td><td>Liquid Temperature</td></tr> <tr> <td>Pb2</td><td>Evaporator Coil Temperature</td></tr> </tbody> </table> <ul style="list-style-type: none"> Press the set button again to view any of these values. To change the set point, press the set button when "SET" is displayed on the screen. The current set point will be displayed. Use the up or down arrows to change the set point to the desired temperature. Press the set button again once the desired temperature is reached. Hold the set button for approximately 5 seconds to enter the CPSM (Customer Preference Selection Mode) menu. (CPSM detail on next page) 	SEt	Set Point	Pb1	Liquid Temperature	Pb2	Evaporator Coil Temperature
SEt	Set Point						
Pb1	Liquid Temperature						
Pb2	Evaporator Coil Temperature						
Snowflake 	<p>Constant - Unit is in cooling mode and the compressor is running.</p> <p>Blinking - The unit is calling for cooling, but must wait 5 minutes before restarting the compressor. This 5 minute delay serves as an anti-short cycle for the compressors protection.</p>						
Dripping Snowflake 	<p>Unit is in Anti-frost mode. The evaporator and condenser fans are running to evaporate any frost which may have formed on the evaporator coil.</p>						
Fan 	<p>The evaporator and condenser fans are on.</p>						
Alarm 	<p>The Alarm symbol is shown and a audible buzzer will sound when the unit encounters an issue that needs attention, the displayed alarm codes are explained below. To silence the buzzer press any button, the alarm code will remain displayed until corrected.</p>						

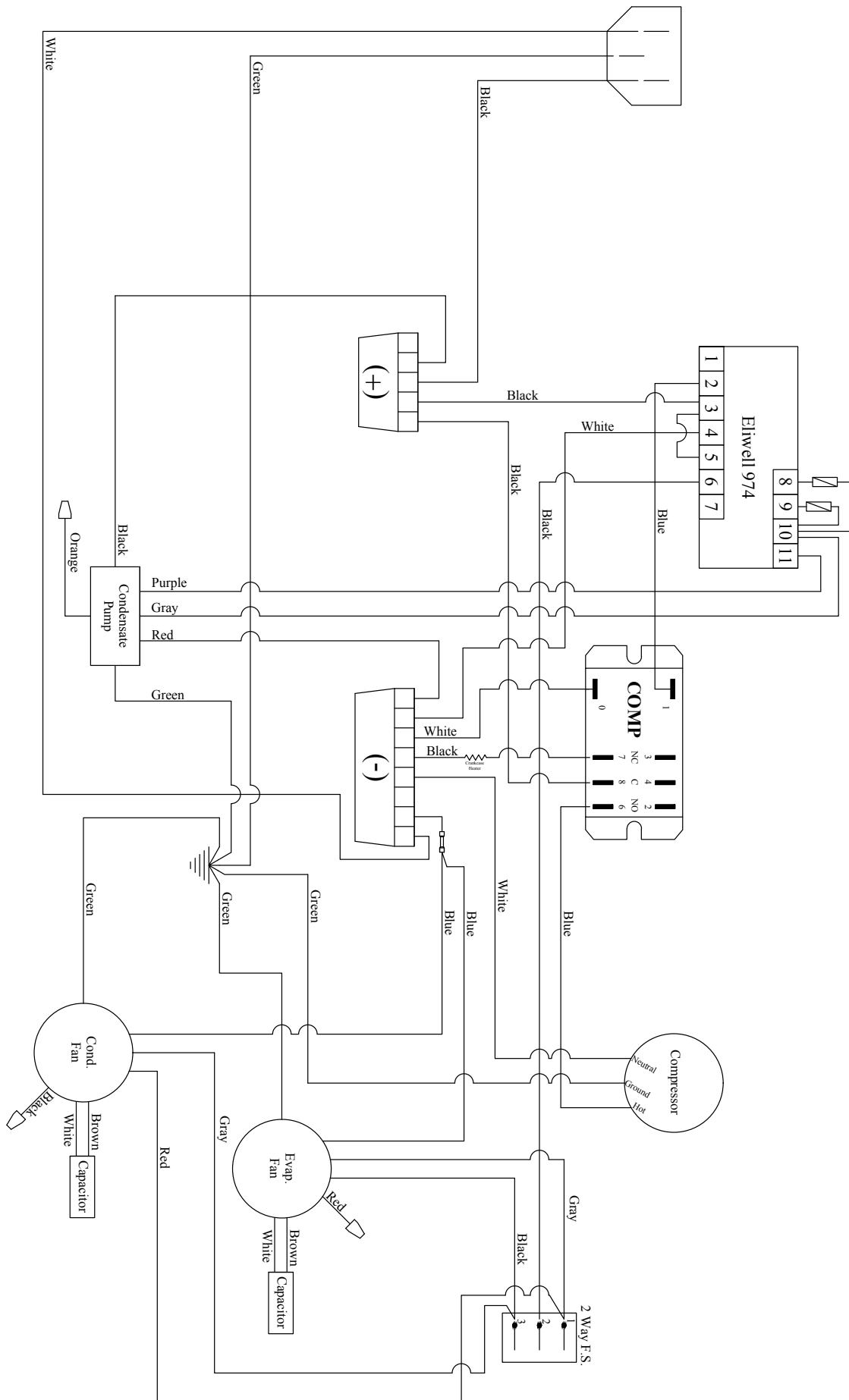
Alarm Codes

Message	Cause	Solution
"E1"	Faulty Air Sensing Probe Connection	1. Check Air Sensing Probe attachment at circular connector. 2. Check Air Sensing Probe connection at the back of controller.
	Defective Air Sensing Probe	Replace the Air Sensing Probe.
"E2"	Faulty Evaporator Probe Connection	Check Evaporator Probe connection at the back of controller.
	Defective Evaporator Probe	Replace the Evaporator Probe.
"AH1"	The Air Sensing probe is sensing a temperature that is 4° above the set point	1. Allow time for the wine to reach the desired temperature. 2. Make sure all windows and doors are closed and have a proper seal. 3. Follow the procedures in the pre-installation instructions to test the unit for proper cooling.
"AL1"	The Air Sensing probe is sensing a temperature that is 4° below the set point	1. Make sure unit is not in cooling mode. (the snowflake symbol will not be lit) 2. Add heat to the room until the wine reaches the desired temperature.
"Ad3"	Anti-frost ended on time-out	1. Check the evaporator coil for ice buildup. Unplug the unit and allow coil to thaw before re-starting. 2. Make sure the room to which the unit is exhausting is not less than 60°. 3. If unit continues to go into continuous anti-frost cycles (every 5 minutes), call customer service for more troubleshooting information.
"Opd"	Water level is too high	1. Check drain line for debris & kinks 2. Check power supply to pump 3. Make sure pump & float are level

CPSM (Customer Preference Selection Mode)

Press and hold the set button for approximately 5 seconds to enter the CPSM menu. "Fdc" will be displayed on the screen. Use the down arrow to access the following parameters.	
Fdc <i>Humidity Management/Enhancement</i>	This parameter is set to 1 from the factory which should provide adequate relative humidity for the cellar. An increase in this parameter will increase the Humidity Enhancement (%RH). This parameter should not be adjusted below 1. Adjustments should be made in increments of 5, with a maximum of 15 and a minimum of 1. After any adjustment to Humidity Enhancement you should wait a minimum of three days before making any additional adjustments. This will allow the cellar sufficient time to acclimate to the new setting.
PA2	No adjustable settings in this parameter.
tab	No adjustable settings in this parameter.
Rel	No adjustable settings in this parameter.
loc	Change this parameter from "n" to "y" to lock the keyboard from changes to the set point.
ddd	Select one of these numbers to display your preference: 0 = Set Point 1 = Air Sensing Probe Temperature 2 = Evaporator Probe Temperature 3 = Condenser Probe Temperature
"CA1"	Use this parameter to calibrate the Air Sensing probe to a known temperature. This parameter can be adjusted between -12°F and 12°F. Example: Air Sensing temperature reading = 58°F Known temperature reading = 55°F CA1 parameter setting to match known temperature = -3

ULTIMATE FM 8000 WIRING DIAGRAM



MAINTENANCE SCHEDULE

Monthly	<ol style="list-style-type: none">1. Check Coils2. Check for unusual noise or vibration3. Check the drain line to see if it is above the waterline if draining into a vessel.
Quarterly	<ol style="list-style-type: none">1. Clean Coils2. Replace Filters on the duct work.3. Check the drain line pump and thoroughly clean the reservoir, filter and float with an antibacterial cleansing solution.4. All drain line hoses should be checked for leaks.
Annually	<ol style="list-style-type: none">1. Replace filters if worn or plugged beyond cleaning.2. Use a vacuum with brush attachment to clean coils. Be careful not to crush coil fins when cleaning.3. Inspect for corrosion.4. Check wiring connections and integrity of cords.5. Examine duct work for cracks or possible leaks.6. Pour a 50/50 bleach solution into the drain line every spring.

TROUBLESHOOTING GUIDE

Unit has ice forming on the Evaporator

Possible Cause	Solution
Evaporator coil is dirty.	Clean coil with a vacuum. If coil is very dirty, use a small hand spray with a small amount of liquid dish washer detergent. Spray coil, let set for 5 min, then flush with fresh water.
There is something blocking the supply and or return air	Remove blockage
The evaporator fan is not turning on.	Call a service tech to troubleshoot
The Unit has not gone through its anti-frost sequence, yet.	Check for ice in the depth of the coil. Melt with blow drier until coil is warm to the touch. Soak up water with a towel.
If Unit continues to ice.	Observe ice formation pattern. If only part way up the coil face, the system could be low on refrigerant. If all the way up, the coil may be dirty or airflow is blocked.

Unit does not run/power up

Possible Cause	Solution
Unit is not plugged in	Make sure the unit is plugged into an outlet
Power switch not on	Turn unit on by pressing the power button on the control
Line voltage is incorrect rating for the system	Check line voltage to make sure there is 110v/120v
Air Sensing at set point	Lower set point
Thermostat not calling for cooling	Lower set point
Faulty thermostat or wiring	Call Customer Service at 1-800-343-9463

Cellar Temperature is to Warm

Possible Cause	Solution
The temperature of the room supplying the condenser side of the unit has exceeded 110°F	Intake temperature needs to drop below 110°.
The unit is undersized for the cellar.	Order correct size system
There is something blocking the supply and/or return air, on the Evaporator or the Condenser side of the Unit.	Remove air flow obstruction
One or more of the fans are not turning on.	Please contact the installing technician to troubleshoot.
Compressor is not turning on.	Please contact the installing technician to troubleshoot.
Compressor keeps cycling on overload	Make sure all fans are working and there are no airflow obstructions.
Poor seal around door or other areas requiring a seal (around the unit, wall joints, etc)	Make sure there are no air gaps around the door. If door seal is damaged, replace it.
Controller Set Point set too high	Lower the set point.
Evaporator coil is frosted or iced up	Observe ice formation pattern. If only part way up the coil face, Unit could be low on refrigerant. If so, contact your installing technician to assist with troubleshooting.

System Runs Constantly

Possible Cause	Solution
Leaky door seal or poorly insulated cellar.	Fix leaky door seal and insulate cellar in accordance with this manual. (Page 9)

TROUBLESHOOTING GUIDE

Unit leaks water

Possible Cause	Solution
Unit is not level	Unit should be level to prevent leaking.
Drain line clogged or kinked	Check drain line to make sure water can flow freely.
Drain is clogged preventing water from escaping	Disconnect drain and clear out, open access door and check drain for blockage
Coil is iced causing drain pan ice and water overflowing	Melt ice with blow drier. Soak up with a towel

Unit runs but does not cool

Possible Cause	Solution
Lack of air flow	Make sure fan is unobstructed; clean evaporator if necessary.
Compressor not running	Contact Customer Service at 800-343-9463
Unit undersized	Contact Customer Service at 800-343-9463
Compressor is overheating	Shut system off for 1 hour to allow compressor to cool. Turn back on and check for cooler air flow out. If compressor runs, check and clean condenser coil as possible cause of compressor overheating. If problem repeats, contact your installing technician to assist with troubleshooting.

Evaporator fan runs but compressor does not

Possible Cause	Solution
Running an Anti-Frost Cycle	
Compressor and/or starting components faulty	Please contact the installing technician to troubleshoot.
System may be performing the WHM function	Allow cooling system to revert back to cooling mode.
Compressor may have overheated.	Shut system off for 1 hour to allow compressor to cool. Turn back on and check for cooler air flow out. If compressor runs, check and clean condenser coil as possible cause of compressor overheating. If problem repeats, contact your installing technician to assist with troubleshooting.

Compressor runs but evaporator fan does not

Possible Cause	Solution
Faulty fan motor	Please contact the installing technician to troubleshoot.
Faulty Controller	Please contact the installing technician to troubleshoot.

Compressor short cycles

Possible Cause	Solution
Unit low on refrigerant charge	Please contact the installing technician to troubleshoot.
Condensing fan motor/capacitor faulty	Please contact the installing technician to troubleshoot.
Compressor and /or starting components faulty	Please contact the installing technician to troubleshoot.

Humidity in cellar too low

Possible Cause	Solution
Not enough moisture	Raise the Fdc setting to increase the humidity level

TROUBLESHOOTING GUIDE

Pump runs all the time	
Possible Cause	Solution
Float is positioned with the magnet facing downwards.	Reposition the float with the magnet facing up wards.
The float is not in the correct location.	Check that the float is located inside the reservoir around the sensor column.
The top is not secured properly to the reservoir.	Make sure that the top is clipped firmly on to the reservoir.
Sludge has built up and is preventing the float to rest on the bottom of the reservoir.	Clean with anti bacterial solution. Note: The pump will only switch off when the float is actually resting on the bottom of the reservoir.
The evaporator produces more condensate than the pump can handle.	The pump is too small and must be replaced with a different type.
Pumps runs but does not pump any water	
Possible Cause	Solution
Evaporator has been disconnected from reservoir.	Connect the evaporator's drain outlet hose onto the drain inlet on the reservoir.
Reservoir has been disconnected pump.	Connect the reservoir outlet to the pump inlet.
Restriction in one of the hoses.	Remove all kinks and debris from the drain hose
Reservoir, filter and discharge hose are being restricted by sludge and debris.	Clean with anti bacterial solution.
Pump does not operate	
Possible Cause	Solution
Power is not reaching the Pump	Contact Customer Service at 800-343-9463
Pump is not wired correctly	Contact Customer Service at 800-343-9463
The pump was too hot and the thermal cut out has been activated.	The pump will automatically reset once the pump has cooled down.

TECHNICAL ASSISTANCE & ACCESSORIES

CellarCool Customer Service is available Monday through Friday from 8:00 a.m. to 4:00 p.m. Pacific Time.

The customer service representative will be able to assist you with your questions and warranty information more effectively if you provide them with the following:

- The model and serial number of your CellarCool Series Unit.
- Location of unit and installation details, such as ventilation, ducting, construction of your wine cellar, and room size.

Contact CellarCool Customer Service

1738 E. Alpine Avenue

Stockton, CA 95205

www.cellarcool.com

Email: support@cellarcool.com

Phone: (209) 466-9463

US Toll Free (800) 343-9463

Fax (209) 466-4606

ACCESSORIES FOR COOLING UNITS

CellarCool offers accessories to enhance and customize your Ultimate FM wine cooling unit.

- Casters

Accessories can be purchased at www.cellarcool.com

CELLARCOOL

Ultimate Series

Product Warranty Information

CellarCool Product Terms and Conditions
Including Product Limited Warranty And Product Installation Requirements
For CellarCool Extreme Series

ATTENTION: PLEASE READ THESE TERMS OF USE CAREFULLY BEFORE INSTALLING YOUR CELLARCOOL COOLING SYSTEM. INSTALLING YOUR CELLARCOOL COOLING SYSTEM INDICATES THAT YOU ACCEPT AND AGREE TO EACH OF THE TERMS AND CONDITIONS SET FORTH HEREIN ("TERMS OF USE"). IF YOU DO NOT ACCEPT THESE TERMS OF USE, YOU RISK VOIDING YOUR WARRANTY AND ASSUMING ADDITIONAL REPAIR AND REPLACEMENT COSTS.

1. Purchase of a CellarCool Cooling System assumes that the Purchaser ("End User") fully accepts and agrees to the Terms and Conditions set forth in this document. The Terms and Conditions of Sale and Owner's Manual are shipped with each unit and, if another copy is needed, replacement copies can be downloaded from the company website (cellarcool.com) or by contacting CellarCool directly for a new copy. CellarCool reserves the right, in its sole discretion, to change its Terms and Conditions at any time, for any reason, without notice.

2. CellarCool Product Limited Warranty:

A. Two (2) Year Limited Warranty. For the period of TWO (2) YEARS (the "Limited Warranty Period") from the date of original sale of a Product by CellarCool, if a CellarCool Product is found to be defective in material or workmanship after undergoing CellarCool's customer service troubleshooting, then, subject to the CellarCool Product Limited Warranty Limitations and Exclusions as well as the other Terms and Conditions stated herein, CellarCool will do the following, as appropriate, for the end user ("End User") who has installed and is actually using the Product, with regard to LABOR, PARTS and FREIGHT:

1. LABOR - repair or replace (at CellarCool's sole option) the Product. If CellarCool determines that Product is to be REPLACED, there will be no labor reimbursement. If CellarCool chooses to REPAIR the Product, CellarCool will consider possibility of maximum reimbursement of \$350.00 in labor for REPAIRING Product on site and supplying all parts at no charge. Invoice for service must be forwarded to CellarCool for assessment and processing.

2. PARTS – supply, at no charge, new or rebuilt replacement parts for the Product in exchange for the return of defective parts. CellarCool, at its option, will assess possibility to replace unit that is at the original site with a warranty replacement unit OR consider possibility of supplying all parts at no charge.

3. FREIGHT – cover normal ground freight charges for parts, and, in the event the Product is not repairable in the field, CellarCool, at its option, will pay freight charges to return original Product to CellarCool for evaluation. End User is responsible for freight charges of replacement Product being shipped to End User.

B. Five (5) Year Compressor Limited Warranty. CellarCool Product's compressor only will be covered for five (5) years from date of purchase. Labor and freight of compressor is the End Users responsibility.

C. Product Warranty Limitations and Exclusions:

1. This limited warranty does not cover cosmetic damage caused during installation, damage due to acts of God, commercial use, accident, misuse, abuse, negligence, or modification to any part of the Product. Delivery and installation of the Product, any additional parts required, as well as removal of the Product if warranty work is required, are all at the sole cost, risk and obligation of the End User.
2. This limited warranty does not cover damage due to improper installation or operation or lack of proper maintenance of the Product, connection of the Product to improper voltage supply, or attempted repair of the Product by anyone other than a technician approved by CellarCool to service the Product.
3. This limited warranty does not cover any Product sold "AS IS" or "WITH ALL FAULTS."
4. Product that has been replaced during warranty period does not extend the warranty period past the original date of purchase.
5. This limited warranty is valid only in the continental United States. Sales elsewhere are excluded from this

1. warranty.
2. Proof of purchase of the Product in the form of a bill of sale, receipted invoice or serial number, which is evidence that the Product is within the Limited Warranty Period, must be presented by the End User to CellarCool in order to obtain limited warranty service.
3. This limited warranty is void if the factory applied serial number has been altered or removed from the Product.
4. This limited warranty is voided if installed in an enclosure of insufficient design that does not follow the Product installation requirements stated herein and in the owner's manual.
5. Removing the rivets from the Product's unit housing without prior authorization from CellarCool voids this limited warranty.
6. The End User must first contact CellarCool Customer Service by telephone (at 1-800-343-9463) prior to attempting service on any Product still under the limited warranty; else the limited warranty is voided.
7. This limited warranty does not cover Product being concealed by, but not limited to, vegetation, fabric, shelving, mud, snow, or dirt. Product must not be painted or limited warranty will be void.
8. This limited warranty does not cover exposure to corroding environments such as, but not limited to, petroleum and gasoline products, cleaning solvents, caustic pool chemicals, and marine air.
9. This limited warranty does not cover any cause not relating to Product defect.
10. THE REPAIR OR REPLACEMENT OF THE PRODUCT AS PROVIDED UNDER THIS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF YOU, THE END USER, AS WELL AS ANYONE ELSE IN THE CHAIN OF TITLE OF THE PRODUCT, DOES NOT START A NEW LIMITED WARRANTY TIME PERIOD, AND IS IN LIEU OF ALL OTHER WARRANTIES (EXPRESS OR IMPLIED) WITH REGARD TO THE PRODUCT. IN NO EVENT SHALL CellarCool BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, SPECIAL OR CONTINGENT DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXPRESSLY DISCLAIMED. Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This limited warranty gives you specific legal rights, and you may have other rights, which vary from state to state.
11. Failure of the End User to comply with all of the Product Installation Requirements, Maintenance Requirements and End User Requirements may, at CellarCool's sole discretion, void this limited warranty.
12. No one has any authority to add to or vary the limited warranty on this Product.

3. Product Installation Requirements:

- A. Prior to installing a CellarCool Product, the End User must read the CellarCool Owner's Manual and thereafter the End User must follow the required installation, use and maintenance procedures set forth by CellarCool in CellarCool's Owner's Manual. The Owner's Manual is shipped with each Product and if another copy is needed, replacement copies can be downloaded from CellarCool's website (www.cellarcool.com) or by contacting CellarCool directly for a new copy of the Owner's Manual.
- B. It is highly recommended that the End User obtain the assistance of a wine storage professional.
- C. Failing to address all of the variables associated with proper installation will cause the Product to operate incorrectly and limit both the Product's ability to cool and the longevity of the Product itself.
- D. The End User is responsible for all risks and costs of installation of the Product, including but not limited to all labor costs as well as cost of any additional parts required for the proper and complete installation of the Product. The End User is responsible for all risks and costs of removing the Product if limited warranty work is required.
- E. The Product cannot operate at its optimum capacity if airflow is constricted by ducting or venting the exhaust side of the Product into a location with inadequate ventilation.

4. Maintenance Requirements

It is the End User's responsibility to clean off any accumulated dust, lint, or other debris from the front and rear intake grills; failure to do this on a regular basis will restrict the airflow and may affect the Product's ability to

function properly. Periodically cleaning the Product's vents will help assure maximum cooling efficiency. The drain tube must also be checked and kept clean and free of debris and mold to maintain proper performance.

Mold is a natural living organism in the environment. It exists in the air in the form of microscopic spores that move in and out of buildings through doors, windows, vents, HVAC systems and anywhere else that air enters. Once it is discovered, mold must be addressed quickly and appropriately. Delayed or improper treatment of mold issues can result in costly and reoccurring repairs. If the End User suspects a mold problem, it is always best to hire a qualified and experienced mold remediation specialist.

5. Additional End User Costs And Responsibilities

The following items are not covered under any warranty and are the sole responsibility of the End User:

- A. End Users should satisfy themselves that the Product they are purchasing is suitable for their particular needs and requirements, and thus no responsibility will be placed with CellarCool for the End User's decisions in this regard.
- B. It is the End User's responsibility to secure safe haven/storage for ANY AND ALL items that are being kept and stored in the End User's wine cellar, including any Product. CellarCool takes no responsibility for the safety and preservation of the aforementioned items in the event that the environment becomes unsuitable to maintain a proper storage environment.
- C. End User is responsible for initial installation costs, including, but not limited to, labor costs and the cost of any additional parts necessary to complete the installation.
- D. End User is responsible for all costs incurred for the installation and/or removal of the Product, or any part thereof, unless such cost has been agreed by CellarCool to be a warranty repair prior to the work being performed.

6. Sales and Use Tax

CellarCool only collects California sales tax for orders shipped within the State of California; CellarCool does not collect sales tax for orders shipped to other states. However, the Purchaser and the End User may be liable to the taxing authority in their state for sales tax and/or use tax on the Product. The Purchaser and the End User should each check with their state's taxing authority for sales and use tax regulations.

7. Customer Service and Troubleshooting

CellarCool's customer service department is available to answer any questions or inquiries for End Users regarding a CellarCool Product, as well as to assist in performing basic troubleshooting, Monday through Friday, from 6:30 a.m. to 4:00 p.m. PST, at telephone number 1-800-343-9463. CellarCool Corporation is located at 1738 East Alpine Avenue, Stockton, California 95205.

8. Miscellaneous Terms and Conditions

- A. Return Policy. All return inquiries must be made within thirty (30) calendar days of the original purchase of a Product and are subject to a twenty five percent (25%) restocking fee. Shipping costs are not refundable and the Purchaser is responsible for all return shipping costs (including customs fees and duties, if applicable).
- B. Security Interest. CellarCool retains a security interest in each Product until payment in full.
- C. Construction and Severability. Every provision of these Terms and Conditions shall be construed, to the extent possible, so as to be valid and enforceable. If any provision of these Terms and Conditions is held by a court of competent jurisdiction to be invalid, illegal or otherwise unenforceable, such provision will, to the extent so held, be deemed severed from the contract of sale between Purchaser and CellarCool, and all of the other non-severed provisions will remain in full force and effect.
- D. Governing Law/Choice of Forum. The laws of the State of California (without regard for conflicts of law) shall govern the construction and enforcement of these Terms and Conditions of Sale (Sections 1 through 9 inclusive, including Product Limited Warranty And Product Installation Requirements), and further these Terms and Conditions of Sale shall be interpreted as though drafted jointly by CellarCool and Purchaser. Any dispute will be resolved by the courts in and for the County of San Joaquin, State of California, and all parties, CellarCool, Purchaser and End User, hereby irrevocably submit to the personal jurisdiction of such courts for that purpose.

No waiver by CellarCool of any breach or default of the contract of sale (including these Terms and Conditions of Sale) concerning a Product will be deemed to be a waiver of any preceding or subsequent breach or default.

- E. Correction of Errors and Inaccuracies. These Terms and Conditions may contain typographical errors or other errors or inaccuracies. CellarCool reserves the right to correct any errors, inaccuracies or omissions, and to change or update these Terms and Conditions, at any time without prior notice.

9. Questions, Additional Information And Technical Assistance

- A. Questions. If you have any questions regarding these Terms and Conditions or wish to obtain additional information, contact us via phone at 1-800-343-9463 or please send a letter via U.S. Mail to:

Customer Service
CellarCool Corporation
1738 E Alpine Ave
Stockton, CA 95205

Email: support@cellarcool.com
Web: www.cellarcool.com

- B. Technical Assistance. CellarCool Customer Service is available Monday through Friday from 6:30 a.m. to 4:00 p.m. PST. The Customer Service representative will be able to assist you with your questions and warranty information more effectively if you provide them with the following:

1. The model and serial number of your CellarCool UNIT.
2. The location of the system and installation details, such as ventilation, construction of your wine cellar, and room size.

Model **Ultimate FM** Serial Number **A** _____

Installed by _____ Date _____

CELLARCOOL

CellarCool
1738 E. Alpine Ave
Stockton, CA 95205
1(855) 235-5271
www.cellarcool.com